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(54) MOBILE TERMINAL AND CORRESPONDING METHOD FOR RECEIVING AN ENCRYPTED FIRST SIGNAL AND COMPLEMENTARY INFORMATION RELATED TO THE FIRST SIGNAL

MOBILES ENDGERÄT UND ENTSPRECHENDES VERFAHREN ZUM EMPFANGEN EINES VERSCHLÜSSELTEN ERSTEN SIGNALS SOWIE VON MIT DEM ERSTEN SIGNAL ZUSAMMENHÄNGENDEN KOMPLEMENTÄREN INFORMATIONEN

TERMINAL MOBILE ET PROCEDE CORRESPONDANT POUR RECEVOIR UN PREMIER SIGNAL CHIFFRE ET UNE INFORMATION COMPLEMENTAIRE LIEE AU PREMIER SIGNAL

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(TELECOMMUNICATIONS SERIES): "Digital Video Broadcasting (DVB);Interaction channel through the Global System for Mobile communications (GSM)" ETSI EN 301 195 V1.1.1, XX, XX, February 1999 (1999-02), pages 1-14, XP002151800

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Description

Field of the invention

[0001] The present invention relates to receivers such as multi-carrier and cellular receivers.

Background

[0002] Cellular receivers, in the form of portable radiotelephones are commonplace, and their design and operation is well understood. Such portable radiotelephones can be used for making and receiving telephone calls, sending and receiving messages, and even browsing world-wide computer network such as the Internet. Many standards exist for portable radiotelephones, including global system for mobile communications (GSM), general radio packet service (GPRS).

[0003] Receivers capable of receiving digital television signals, such as signals according to the terrestrial digital video broadcasting (DVB-T) standard are also commonplace.

[0004] The use and operation of consumer set-top-boxes (STB) for receiving digital video broadcasting (DVB-T) transmissions are well known. Such STBs are capable of receiving a large number of digital television channels, data and other interactive services.

[0005] In US 5,822,324, a system for simulcasting digital video programmes, in which information relating to the purchase of pay-per-view services or interactive services can be conveyed via a wireless telephone network. In another prior system, disclosed in WO 99/35771 A1, a programme and related data can be transmitted to a mobile telephone simultaneously. A user can select an option from said related data and transmit their selection via the telephone network, using data extracted from a SIM card for identification purposes.

[0006] Furthermore, DE 4 424 380 A1 describes a receiver for receiving video signals broadcast via a first network and complementary (eg. decrypting) information related to said video signals transmitted via a second network (eg. GSM or GPRS).

Summary of the invention

[0007] According to a first aspect of the present invention, a mobile terminal has a first receiver configured to receive an encrypted first signal from a first communications network and a second receiver configured to receive from a second communications network a second signal conveying complementary information relating to said first signal, wherein the complementary information comprises information enabling said encrypted signal to be decrypted, and a subscriber identification module containing security data for use in conjunction with said second signal for enabling said encrypted first signal to be decrypted, wherein said mobile terminal is arranged to enable the first receiver to receive said first signal in re-

sponse to said complementary information, wherein the complementary information provides schedule or configuration data regarding an item to be broadcast over the first communications network.

[0008] In a first embodiment of the present invention this results in increased power efficiency, since one of the receivers can be effectively switched off whilst not required. Schedule or configuration data can, however, still be received on the other receiver. The received schedule or configuration data can be used to switch on the other receiver at an appropriate time. This configuration allows the receiver to receive non-scheduled data, such as news flashes, results from sporting events, share prices etc.

[0009] In a second embodiment of the present invention, a receiver is able to receive a broadcast signal via a broadcast network, and to receive additional and complementary information thereto via a second telecommunications network. This is particularly advantageous in security applications, where security keys and other private or sensitive data may be sent via a more private telecommunications network. For example, if a pay-per-view film is being broadcast in encrypted form, the security keys needed to decrypt the film may be sent via the second telecommunications network. This prevents the security keys from unauthorised access of the broadcast network.

[0010] According to a second aspect of the present invention, a method of receiving an encrypted first signal from a first communications network comprises receiving from a second communications network a second signal conveying complementary information relating to said first signal, said information enabling said encrypted signal to be decrypted and decrypting said encrypted first signal using said received information wherein, in said step of decrypting, the received information is used in conjunction with security data stored on a subscriber identification module, and enabling a receiver to receive said first signal in response to the complementary information, wherein the complementary information provides schedule or configuration data regarding an item to be broadcast over the first communications network.

Brief description of the drawings

[0011] The invention will now be described, by way of example only, with reference to the accompanying diagrams, in which:

Figure 1 is a block diagram of a typical consumer receiver/transmitter arrangement;
Figure 2 is a block diagram of a first embodiment according to the present invention; and
Figure 3 is a block diagram of yet a further embodiment according to the present invention.

Detailed description

[0012] Figure 1 is a block diagram of a typical consumer receiver/transmitter arrangement in which a terrestrial digital video broadcasting (DVB-T) transmitter 150 transmits a DVB-T signal to a DVB-T set-top-box receiver 106.

[0013] In the transmitter 150, a number of television channels 154 and 156 are multiplexed together with a number of data channels 158 and 160 by a multiplexer 152. In addition to this, service information (SI) 162, which contains details of each of the other multiplexed channels, is also input to the multiplexer 252, provided by a SI generator 164. The multiplexer creates a single, multiplexed, signal 166 which contains all of the separate channels 154, 156, 158 and 160, along with the SI 162. Further details of the multiplexing and SI may be found in the DVB-T specification (EN 300 468). The multiplexed signal 166 is transmitted via an antenna 164, across a transmission channel, to an antenna 102 of a set-top-box receiver 106. In the case of DVB-T, the transmission channel is a terrestrial transmission channel. However, the transmission channel could, alternatively, be a satellite, microwave, cable or optical channel.

[0014] The signals received by the antenna 102 are input to a DVB-T receiver 100 which enables the user to select a desired channel. Received data may also be stored in a memory 104.

[0015] Whilst the set-top-box 106 is switched on, the DVB-T receiver 100 is also powered up and receiving DVB-T signals. The DVB-T receiver is constantly decoding SI information which provides details of the content and location of each of the channels within the received multiplexed signal. The SI information also contain schedule details for each of the multiplexed channels. The schedule details allow a user to watch or record a specific programme of interest. For example, if the set-top-box 106 is connected to a personal computer (not shown), it is possible to receive data transmitted over the DVB-T network for use with the personal computer. In this way, the transmission of large data files can be broadcast, to a large audience, using the high data rates provided by DVB-T transmission. If a data file is due to be transmitted at a certain time on a certain channel, the SI information will contain this information which can be used by the personal computer to ensure that receiver receives the required data.

[0016] SI information may change frequently, to reflect not only changes in program scheduling, but also to reflect re-allocation of frequencies and channels etc by the broadcaster. For example, it is possible for a channel to broadcast on a different frequency to originally scheduled. Since the SI contains details of the frequencies (or changes to the frequencies), a receiver should always be able to receive the desired channel and/or program. Some set-top-boxes store SI information in a memory, thereby allowing users to browse a schedule or program guide. However, due to the nature of SI information, the SI information is updated frequently to ensure that no

discrepancies exist between the SI stored by the set-top-box and the SI being transmitted by the broadcaster.

[0017] Figure 2 shows a block diagram of a first embodiment according to the present invention. A mobile terminal 200 receives DVB-T transmissions from a DVB-T transmitter 272. The transmitted DVB-T signal is a multiplexed signal produced by a multiplexer 250. The multiplexer 250 accepts as inputs a number of channels 252, 254, 256 and 258 to produce the multiplexed signal. The channels may be television, audio or data channels. Service information (SI) data, which contains details of the multiplexed channels, is also input to the multiplexer 250. The SI data is generated by a SI generator 260, which may be a database containing schedule and location details of each of the channels.

[0018] The DVB-T signals are received by an antenna 210 of the mobile terminal 200 and are received and decoded by a DVB-T receiver 202.

[0019] In addition, and advantageously, the mobile terminal also receives an interactive channel from a cellular or other transmission network 274 at a cellular transceiver 206. The cellular transceiver 206 allows both the reception and transmission of signals between the mobile terminal 200 and the cellular network 274. The cellular network may be a GSM network, a general packet radio service (GPRS), third generation (3G) or other suitable network.

[0020] SI data generated by the SI generator 260 is also supplied to a profiler 262 of the cellular network 274. The profiler contains a database of information about each of the subscribers to the cellular network 274. The profiler may contain information such as, demographic data, income level, sports leisure interests, etc.

[0021] The operation of a first embodiment of the present invention will now be described by way of example.

[0022] According to the prior art, if a user wishes to receive a video clip each time his favourite football team scores during a football match, it is necessary that the DVB-T receiver 100 in the DVB-T set-top-box 106 is constantly powered up and is constantly receiving SI data. This is since the exact timing of when a goal will be scored is not known in advance. Accordingly, no schedule will exist in the SI data for this event. A DVB-T receiver must therefore wait for the SI data to indicate when the video clip will be broadcast. If the user is only interested in receiving video clips of the football match, this is particularly inefficient in terms of power consumption, especially for mobile terminals, since the DVB-T receiver just waiting, consuming power, for a specific video clip to be broadcast.

[0023] According to a first embodiment of the present invention, as exemplified in Figure 2, the subscriber registers his interest in receiving video clips with the profiler 262 of the cellular network 274. The DVB-T receiver 202 of the mobile terminal 200 may then be powered down. When a goal is scored, and a video clip is available for broadcast, the broadcaster must schedule the video clip

to be included in the existing DVB-T multiplex signal. This may involve rescheduling existing programs, and updating the SI data accordingly. Once a scheduled time has been established for the broadcast of the video clip, a service announcement is sent by the cellular network 274 to the cellular transceiver 206. The service announcement is received by the cellular transceiver 206 and is processed by the controller 204. The controller informs the DVB-T receiver 202 of when the video clip will be broadcast and other relevant associated data, such as channel location, encryption parameters etc. The DVB-T receiver can be powered up and configured in time to receive and decode the video clip. The video clip may also be stored in a memory 208. Once the desired video clip, or other data, has been received, the DVB-T receiver 202 can be once again powered down.

[0024] The service announcement may be in the form of SI data, or may alternatively be in the form of a special short message service (SMS) message containing the necessary timing and location information required by the DVB-T receiver. Alternative forms of service announcement may be used, both in terms of the data required to be sent and the protocol which is used for sending it.

[0025] In this way, the DVB-T receiver 202 can be powered down when not required for actual reception of data. This can produce large savings in power consumption, compared to the system of the prior art.

[0026] The profiler 262 also controls whether requested information is transmitted to a user via the DVB-T or cellular network. For example, if one million people have requested to see a video clip of goals from a particular football match, it is better to transmit the video clip via the DVB-T network. For such a large number of users, the DVB-T network provides a cost effective delivery means. The alternative would be to individually send the video clip via the cellular network which, with so many users, could impact severely on the operation of the cellular network.

[0027] If the number of users requesting to see a particular video clip is much smaller, it may be more economical to send it individually via the cellular network. The exact threshold levels will vary according to the pricing structure of the DVB-T and cellular networks, as well as the number of users requesting a particular item, and the volume of data required to be sent.

[0028] The cellular transceiver 206 may also be used to send an acknowledgement back to the cellular network 274, indicating whether the video clip was correctly received. This may be used for billing purposes, or also to request a re-sending of the video clip if it not received due to poor signal strength etc. Re-sending of the video clip may again take place either via the DVB-T or cellular network depending on demand and cost effectiveness.

[0029] A further advantage of the present invention is that, if schedule announcements are sent over the cellular network, it is possible to remove some or all of the SI data from DVB-T network. Since the SI data typically

occupies up to 3Mbits⁻¹ this redundant bandwidth could be used for providing additional data or video channels.

[0030] In a further embodiment of the present invention, a profiler may be included in the mobile terminal 200. This may be instead of, or in addition to, the profiler 262 of the cellular network 274. A profiler on the mobile terminal may be used if the communications network used for the interactive channel supports broadcasting of data, such as via a GPRS network or other packet type network. The profiler can be configured according to user preferences, and will only accept service announcements which comply with the user preferences.

Figure 3 shows yet a further embodiment of the present invention, which makes use of the additional interactive channel to provide increased security.

[0031] A mobile terminal 300, receives DVB-T signals via an antenna 310 at a DVB-T receiver 302. The DVB-T signals are provided and transmitted by a DVB-T network 320, via an antenna 330. The mobile terminal 300 also comprises a cellular transceiver 306 which can send and receive calls via a cellular network 326. The mobile terminal 300 also comprises a controller 304 which can either send or receive control information from the cellular transceiver 306, the DVB-T receiver 302 or a memory 308. A controller 324 is also provided to provide communication and control between the DVB-T network 320 and the cellular network 326.

[0032] This embodiment enables DVB-T data to be broadcast from the DVB-T network 320 to the mobile terminal 300. In addition, data related to the broadcast DVB-T signal may also be transmitted to the mobile terminal 300 via the cellular network 326.

[0033] For example, at present, when encrypted video or television channels are broadcast to a terminal, security keys are also broadcast over the broadcast channel to enable subscribers to decrypt the encoded data. Although the security keys are hidden in the broadcast signal, it is possible for unauthorised users to gain access to these keys by monitoring the broadcast signals. Using the present invention, the security keys or security data can be sent over the interactive channel, directly to each individual receiver. This makes it increasingly difficult for unauthorised users to obtain access to the security keys, since they are sent via a different path to the encrypted video signals. The security keys may be sent for either currently broadcast signals, or for broadcast signals which have yet to be broadcast. In a still further embodiment, the terminal 300 comprises a subscriber identification module (SIM) (not shown) which may contain authorisation or additional security data for use with either the cellular or DVB networks. The authorisation or additional security data contained by the SIM may be used in conjunction with the security data to enable authorisation or decryption of the signals received via the broadcast network.

[0034] In a still further embodiment of the present invention, on-line banking and other customer orientated services can use the present invention to improve the

transmission of data, including Internet pages, to subscribers. For example, an on-line bank could broadcast using the DVB-T network pages of information containing high quality graphics, standard texts etc. Each page could then be personalised using personal data transmitted over the interactive channel. For example, a generic 'balance' sheet could be broadcast to all users containing the bank logo, background images etc. Personal balance data transmitted over the interactive channel could then be combined with the broadcast 'balance' sheet, to present to the user their own personal balance sheet.

[0035] The present invention therefore provides benefits not only in increase power efficiency of such systems, but also provides added security and benefits of being able to broadcast information to multiple users, and to send subscriber specific information related to that broadcast information using a separate, personal, communications link. In yet a further embodiment of the present invention, the interactive channel can be used for both transmitting service announcements as well as security or private data.

[0036] Those skilled in the art will appreciate that although the present invention is described above with reference to DVB-T transmissions, the invention is not limited thereto. The same techniques could be applied to DVB (satellite) reception and transmission or any other similar or equivalent standards. Equally, references to cellular networks and cellular transmission techniques could be replaced by fixed line, public switched telephone networks, or any other type of suitable communications network.

Claims

1. A mobile terminal (200) having a first receiver (202) configured to receive an encrypted first signal from a first communications network and a second receiver (206) configured to receive from a second communications network a second signal conveying complementary information relating to said first signal, wherein the complementary information comprises information enabling said encrypted signal to be decrypted;

characterised in that:

said mobile terminal (200) further comprises a subscriber identification module containing security data for use in conjunction with said second signal for enabling said encrypted first signal to be decrypted; and
said mobile terminal (200) is arranged to enable the first receiver (202) to receive said first signal in response to said complementary information, wherein the complementary information provides schedule or configuration data regarding an item to be broadcast over the first communi-

cations network.

2. A mobile terminal (200) according to claim 1, further comprising a controller (204) arranged to configure said first receiver (202) according to schedule and configuration data provided by said complementary information.
3. A mobile terminal (200) according to claim 1, further comprising storage means arranged to store user preferences, said mobile terminal (200) being arranged so that said first receiver (202) is enabled in dependence on stored user preferences.
4. A mobile terminal (200) according to claim 1, further comprising decision means (204) configured to decide whether said second signal should enable said first receiver in dependence on stored user preferences.
5. A mobile terminal (200) according to claim 1, wherein said encrypted first signal is a Digital Video Broadcasting signal, and said first receiver (202) is a digital video broadcasting receiver.
6. A mobile terminal (200) according to claim 1, wherein said second signal is a Global System for Mobile signal, and said second receiver (206) is a Global System for Mobile receiver.
7. A mobile terminal (200) according to claim 1, wherein said second signal is a General Packet Radio Service signal, and said second receiver (206) is a General Packet Radio Service receiver.
8. A method of receiving an encrypted first signal from a first communications network comprising:

receiving from a second communications network (274) a second signal conveying complementary information relating to said first signal, said information enabling said encrypted signal to be decrypted; and
decrypting said encrypted first signal using said received information;

characterised by:

enabling a receiver (202) to receive said first signal in response to the complementary information, wherein the complementary information provides schedule or configuration data regarding an item to be broadcast over the first communications network;

wherein, in said step of decrypting, the received information is used in conjunction with security data stored on a subscriber identification module.

9. A method as claimed in claim 8, wherein said complementary information comprises personal data and said first signal comprises generic data, comprising combining said personal data with said generic data.
10. A method as claimed in claim 8 or 9, wherein said encrypted first signal is a Digital Video Broadcasting signal, and said receiver (202) is a digital video broadcasting receiver.

Patentansprüche

1. Mobilendgerät (200) mit einem ersten Empfänger (202), der eingerichtet ist, ein verschlüsseltes erstes Signal von einem ersten Kommunikationsnetz zu empfangen, und einem zweiten Empfänger (206), der eingerichtet ist, von einem zweiten Kommunikationsnetz ein zweites Signal zu empfangen, das die komplementären Informationen bezogen auf das erste Signal überträgt, wobei die komplementären Informationen Informationen umfassen, die ermöglichen das verschlüsselte Signal zu entschlüsseln;
dadurch gekennzeichnet, dass
- das Mobilendgerät (200) weiter ein Teilnehmeridentifikationsmodul umfasst, das Sicherheitsdaten zur Verwendung in Verbindung mit dem zweiten Signal enthält, um zu ermöglichen, dass das verschlüsselte erste Signal entschlüsselt werden kann; und
 - das Mobilendgerät (200) eingerichtet ist, dem ersten Empfänger (202) zu ermöglichen, das erste Signal als Antwort auf die komplementären Informationen zu empfangen, wobei die komplementären Informationen Ablaufplan- oder Konfigurationsdaten bezüglich einer Einheit bereitstellen, um über das erste Kommunikationsnetz sammel gesendet zu werden.
2. Mobilendgerät (200) gemäß Anspruch 1, weiter umfassend eine Steuereinrichtung (204), die eingerichtet ist, den ersten Empfänger (202) gemäß der Ablaufplan- und Konfigurationsdaten zu konfigurieren, die durch die komplementären Informationen bereitgestellt werden.
3. Mobilendgerät (200) gemäß Anspruch 1, weiter umfassend Speichermittel, die eingerichtet sind, die Benutzereinstellungen zu speichern, wobei das Mobilendgerät (200) so eingerichtet ist, dass der erste Empfänger (202) in Abhängigkeit von gespeicherten Benutzereinstellungen freigegeben wird.
4. Mobilendgerät (200) gemäß Anspruch 1, weiter umfassend Entscheidungsmittel (204), die eingerichtet sind, zu entscheiden, ob das zweite Signal den er-

sten Empfänger in Abhängigkeit von gespeicherten Benutzereinstellungen freigibt.

5. Mobilendgerät (200) gemäß Anspruch 1, wobei das verschlüsselte erste Signal ein Digital-Video-Broadcasting-Signal ist, und der erste Empfänger (202) ein Digital-Video-Broadcasting-Empfänger ist.
6. Mobilendgerät (200) gemäß Anspruch 1, wobei das zweite Signal ein Global-System-for-Mobile-Signal ist, und der zweite Empfänger (206) ein Global-System-for-Mobile-Empfänger ist.
7. Mobilendgerät (200) gemäß Anspruch 1, wobei das zweite Signal ein General-Paket-Radio-Service-Signal ist, und der zweite Empfänger (206) ein General-Paket-Radio-Service -Empfänger ist.
8. Verfahren zum Empfangen eines verschlüsselten ersten Signals von einem ersten Kommunikationsnetz umfassend:
- Empfangen von einem zweiten Kommunikationsnetz (274) eines zweiten Signals, das die komplementären Informationen bezogen auf das erste Signal überträgt, wobei die Informationen ermöglichen, das verschlüsselte Signal zu entschlüsseln; und
 - Entschlüsseln des verschlüsselten ersten Signals unter Verwendung der empfangenen Information;
- gekennzeichnet durch**
- Ermöglichen eines Empfängers (202) das erste Signal als Antwort auf die komplementären Informationen zu empfangen, wobei die komplementären Informationen Ablaufplan- oder Konfigurationsdaten bezüglich einer Einheit bereitstellen, die über das erste Kommunikationsnetz sammel gesendet wird.
 - wobei in dem Entschlüsselungsschritt die empfangenen Informationen in Verbindung mit Sicherheitsdaten, die in einem Teilnehmeridentifikationsmodul gespeichert sind, verwendet werden.
9. Verfahren gemäß Anspruch 8, wobei die komplementären Informationen persönliche Daten umfasst und das erste Signal generische Daten umfasst, umfassend das Kombinieren der persönlichen Daten mit den generischen Daten.
10. Verfahren gemäß Anspruch 8 oder 9, wobei das verschlüsselte erste Signal ein Digital-Video-Broadcasting-Signal ist, und der erste Empfänger (202) ein Digital-Video-Broadcasting-Empfänger ist. befähigen

Revendications

1. Terminal mobile (200) comprenant un premier récepteur (202) configuré pour recevoir un premier signal encrypté à partir d'un premier réseau de communication et un deuxième récepteur (206) configuré pour recevoir d'un deuxième réseau de communications un deuxième signal transportant des informations complémentaires concernant ledit premier signal, terminal dans lequel les informations complémentaires comprennent des informations permettant audit signal encrypté d'être décrypté ;
caractérisé en ce que :

 ledit terminal mobile (200) comprend en outre un module d'identification d'abonné contenant des données de sécurité destinées à être utilisées en même temps que ledit deuxième signal pour permettre audit premier signal encrypté d'être décrypté ; et
 ledit terminal mobile (200) est prévu pour permettre au premier récepteur (202) de recevoir ledit premier signal en réponse auxdites informations complémentaires, dans lequel les informations complémentaires fournissent des données de programme ou de configuration concernant un élément devant être diffusé sur le premier réseau de transmissions.
2. Terminal mobile (200) selon la revendication 1, comportant en outre un contrôleur (204) prévu pour configurer ledit premier récepteur (202) suivant des données de programme et de configuration fournies par lesdites informations complémentaires.
3. Terminal mobile (200) selon la revendication 1, comportant en outre des moyens de stockage prévus pour stocker des préférences d'utilisateur, ledit terminal mobile (200) étant conçu de telle sorte que ledit premier récepteur (202) est validé en fonction des préférences stockées d'utilisateur.
4. Terminal mobile (200) selon la revendication 1, comportant en outre des moyens de décision (204) configurés pour décider si ledit deuxième signal doit valider le dit premier récepteur en fonction des préférences stockées d'utilisateur.
5. Terminal mobile (200) selon la revendication 1, dans lequel ledit premier signal encrypté est un signal de diffusion vidéo numérique, et ledit premier récepteur (202) est un récepteur de diffusion vidéo numérique.
6. Terminal mobile (200) selon la revendication 1, dans lequel ledit deuxième signal est un signal de système global de mobiles, et ledit deuxième récepteur (206) est un récepteur de système global de mobiles.

7. Terminal mobile (200) selon la revendication 1, dans lequel ledit deuxième signal est un signal de services radio général par paquets, et ledit deuxième récepteur (206) est un récepteur de signal de services radio général par paquets.

8. Procédé permettant de recevoir un premier signal encrypté à partir d'un premier réseau de communications comprenant les étapes consistant à:

recevoir d'un deuxième réseau de communications (274) un deuxième signal transportant des informations complémentaires concernant ledit premier signal, lesdites informations permettant de décrypter ledit signal encrypté; et
 décrypter ledit premier signal encrypté en utilisant lesdites informations reçues;

caractérisé par les étapes consistant à:

permettre à un récepteur (202) de recevoir ledit premier signal en réponse aux informations complémentaires, dans lequel les informations complémentaires fournissent des données de programme et de configuration concernant un élément devant être diffusé sur le premier réseau de communications ;

dans lequel, dans ladite étape de déchiffrement, les informations reçues sont utilisées en même temps que des données de sécurité stockées sur un module d'identification d'abonné.

9. Procédé selon la revendication 8, dans lequel lesdites informations complémentaires comprennent des données personnelles et ledit premier signal comprend des données génériques, procédé comprenant la combinaison desdites données personnelles avec lesdites données génériques.
10. Procédé selon la revendication 8 ou 9, dans lequel ledit premier signal encrypté est un signal de diffusion vidéo numérique, et ledit récepteur (202) est un récepteur de diffusion vidéo numérique.

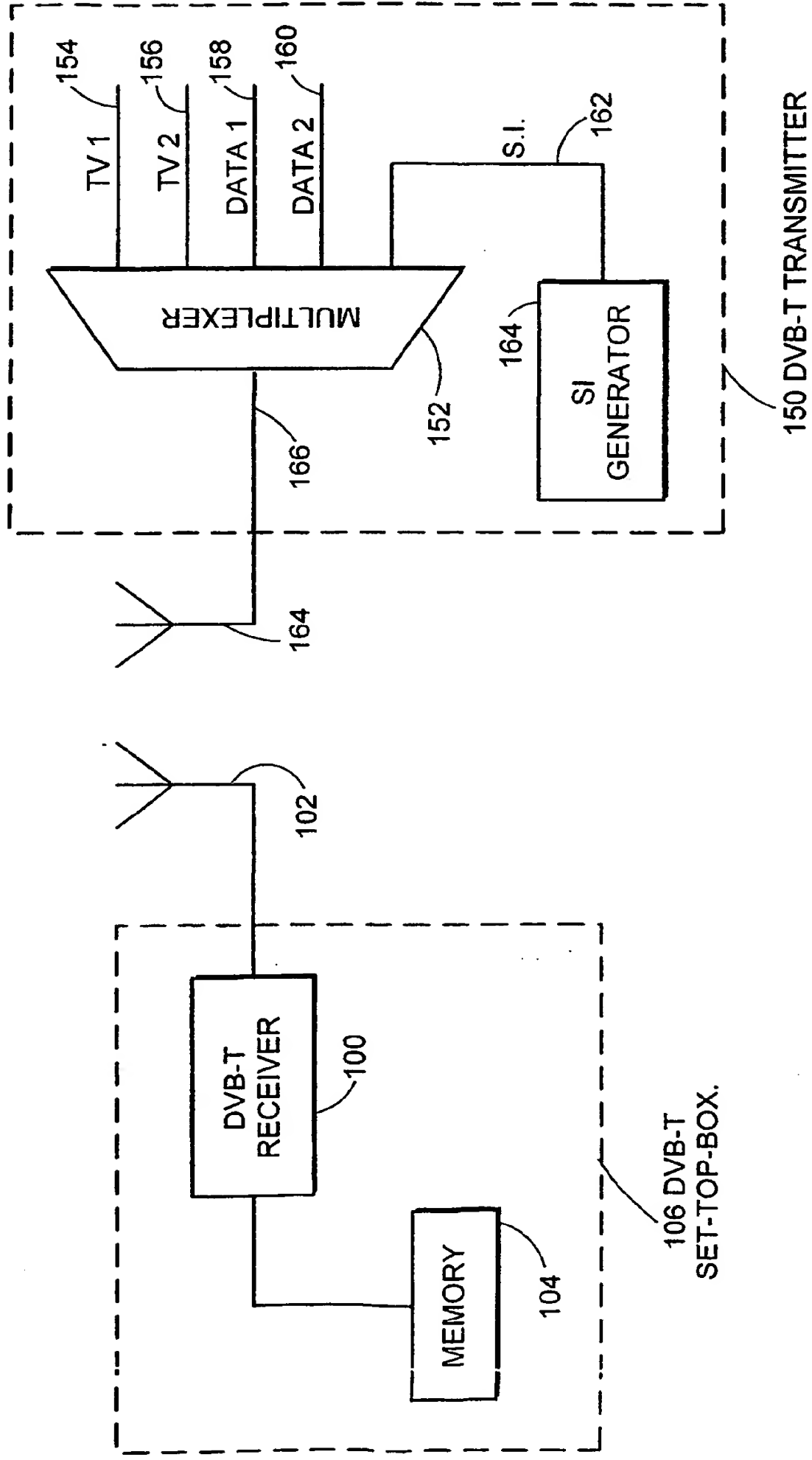


FIG.1 PRIOR ART

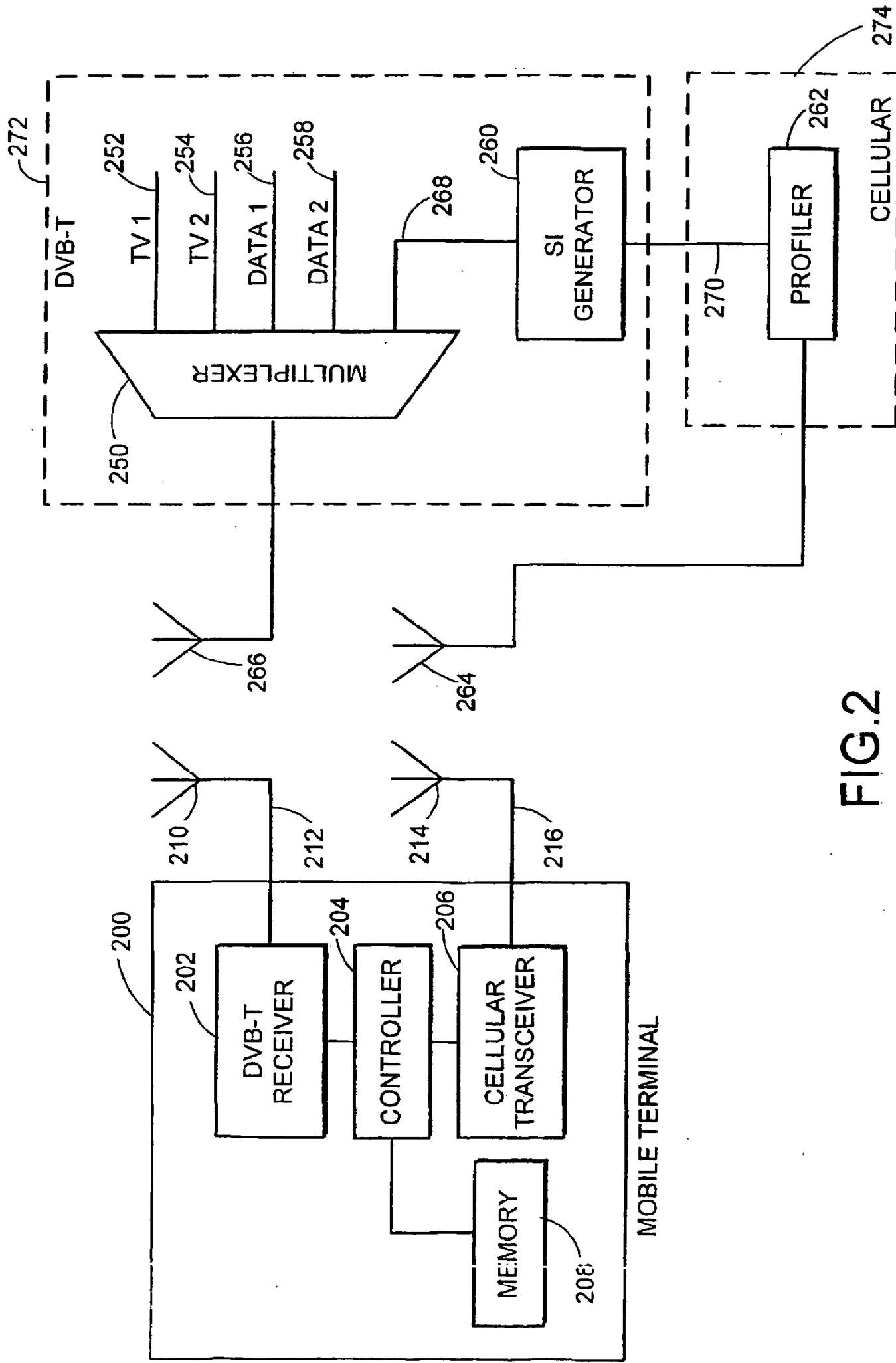


FIG. 2

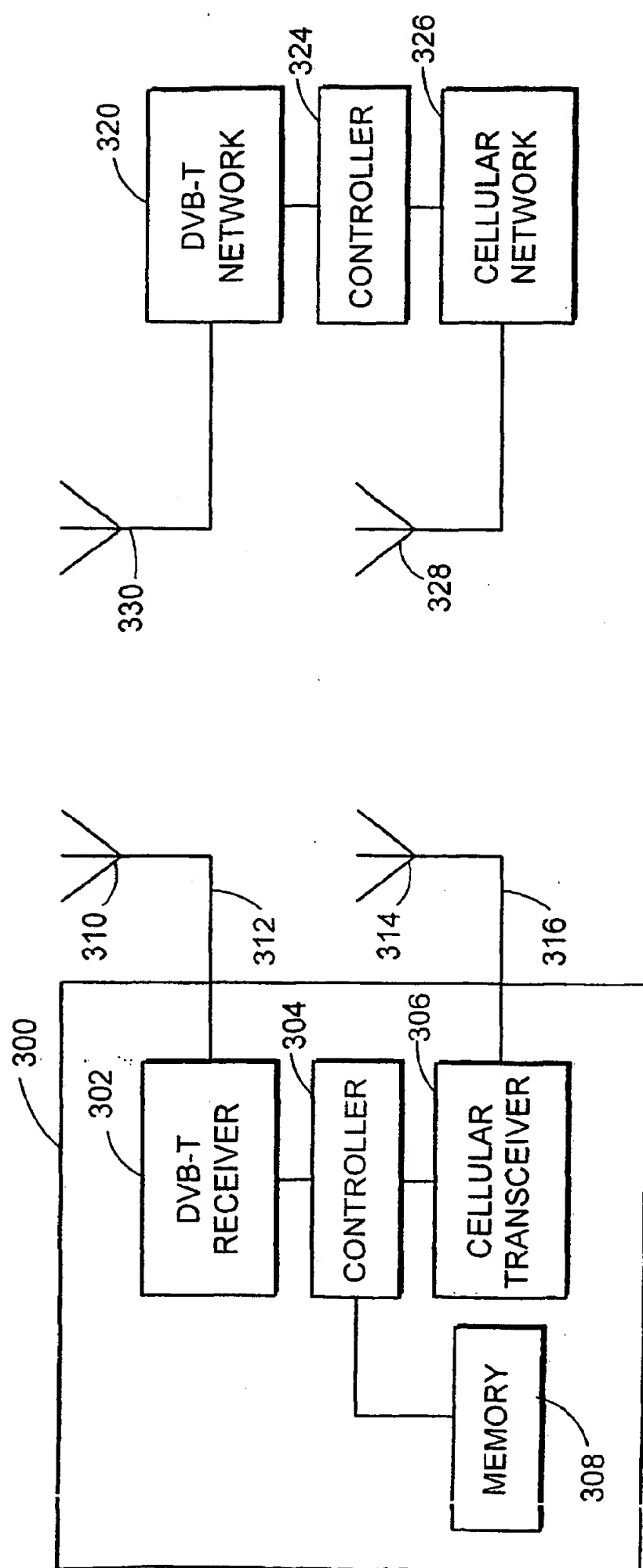


FIG.3